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1. (Amended) A driving unit of a welding equipment provided with a force application shaft that is driven by a motor, comprising:

a screw shaft coaxially fixed with a rotary shaft of the motor;

a nut fixed with the force application shaft and threadably engaged with a screw of the screw shaft;

a stabilizing mechanism engaging the force application shaft to prevent rotation thereof; and

whereby a rotary force output from the rotary shaft of the motor is converted into a reciprocating motion of the force application shaft which in turn applies a force to the welding equipment.

2. (Amended) The driving unit of a welding equipment according to Claim 1, wherein the screw shaft is integrally provided on the rotary shaft of the motor by extending the rotary shaft of the motor in the output direction of the motor to form the screw shaft on an extension portion.

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4. (Amended) The driving unit of a welding equipment according to Claim 1, wherein the screw shaft is substantially integrally provided on the rotary shaft of the motor by rendering the rotary shaft of the motor hollow to form a hollow portion and having the screw shaft penetrate the hollow portion to fix the screw shaft to the hollow portion.

6. (Amended) The driving unit of a welding equipment according to Claim 1, wherein the nut is integrally provided on the force application shaft by rendering the force application shaft hollow, and forming a screw on the inner periphery of the force application shaft at the end thereof.

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7. (Amended) The driving unit of a welding equipment according to Claim 1, wherein the nut is substantially integrally provided on the force application shaft by rendering the force application shaft hollow, and fixing a nut to the inner periphery of the force application shaft at the end thereof.

8. (Amended) The driving unit of a welding equipment according to Claim 1, wherein the nut is substantially integrally provided on the force application shaft by fixing the nut to the force application shaft at the end thereof.

9. (Amended) The driving unit of a welding equipment according to Claim 1, further comprising an elastic body disposed on the axis of the force application shaft through which the force exerts, and an electromagnetic brake disposed on the rotary shaft of the motor.

10. (Amended) The driving unit of a welding equipment according to Claim 1, further comprising a machining part provided on the end of the rotary shaft opposite to the output side thereof, on which a manual operating handle is mounted.

11. (Amended) The driving unit of a welding equipment according to Claim 1, further comprising a machining part provided on the end of the screw shaft opposite to the output side of the rotary shaft, on which a manual operating handle is mounted.

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12. (Amended) The driving unit of a welding equipment according to Claim 1, further comprising a driven part that is provided on the rotary shaft of the motor or the screw shaft and positioned between the rear of a body of the motor and the front of a position detector for transmitting the torque of

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the motor and a manual operating driving part that is positioned eccentrically from the screw shaft for transmitting a turning torque to the driven part.

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16. (New) A driving unit of a welding equipment provided with a force application shaft that is driven by a motor having a rotary shaft, comprising:

a screw shaft fixed to and coaxially aligned with the rotary shaft of the motor for rotation therewith, the screw shaft having an externally threaded screw portion at the output end thereof;

the force application shaft being coaxially aligned with the screw shaft and having at one end thereof a threaded opening threadably engaged with the threaded screw portion of the screw shaft; and

a stabilizing mechanism engaging the force application shaft to permit solely linear movement in the lengthwise direction thereof;

whereby a rotary force output from the rotary shaft of the motor is converted into linear movement of the force application shaft.

17. (New) The driving unit according to Claim 16, wherein the stabilizing mechanism comprises a ball spline mechanism preventing rotation of the force application shaft.

18. (New) The driving unit according to Claim 16, wherein the rotary shaft includes a bore hole at the output side thereof receiving an end of the screw shaft therein.

19. (New) The driving unit according to Claim 16, comprising:

an outer shell receiving the motor;

rotary shaft bearings supporting the rotary shaft within the outer shell;

a part formed on the end of the rotary shaft opposite to the output side thereof for receiving a manual operating handle to enable manual rotation of shaft;

a frame case fixed to the output end of the outer shell;

a trunnion shaft mounted on the output end of the force application shaft for connecting the force application shaft to a movable part of the welding equipment;

a position detector adjacent the end of the rotary shaft opposite to the output side thereof; and

the stabilizing mechanism comprising a ball spline mechanism provided between the force application shaft and the frame case, and the threaded opening of the force application shaft and its engagement with the screw shaft comprising a ball nut assembly.

20. (New) A driving unit of a welding equipment provided with a force application shaft that is driven by a motor having a rotary shaft, comprising:

a screw shaft fixed to and coaxially aligned with the rotary shaft of the motor for rotation therewith, the screw shaft having an externally threaded screw portion at the output end thereof;

the force application shaft being coaxially aligned with the screw shaft, engaged with the threaded screw portion of the screw shaft;

a stabilizing mechanism engaging the force application shaft to prevent rotation thereof;

a nut coaxially aligned with the force application shaft, the nut being nonrotatably but axially slidably supported on the force application shaft, the nut having an inner thread opening which is threadably engaged with the screw shaft; and

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a spring coacting axially between the nut and the force application shaft for applying a biasing force to the force application shaft in response to movement of the nut;

whereby a rotary force output from the rotary shaft of the motor is converted into linear movement of the nut.
